ROAD SYSTEM

BRIDGES

BRIDGES OFF BENGE ROAD

PROJECT SCOPE/DESCRIPTION: Culvert "A" over the mill race will be replaced with a precast concrete box culvert. The geometry will match the existing bridge, with a 10-foot span and a 12-foot width curb to curb. Timber or concrete railing will be used on the sides of the culvert. The improvements on Culvert "B" will consist of replacing the existing superstructure with a glue-laminated longitudinal timber deck. Timber rails will be used on the bridge and at the approaches. The concrete abutments will be rehabilitated. Additional work to be included will be minor reconstruction of roadway approaches, placement of guardrail, and placement of riprap in the streams for scour protection.



PROJECT JUSTIFICATION: Culvert "A" over the mill race consists of a concrete slab on stone masonry abutments. The stone abutments and wingwalls are in deteriorating condition. Both abutments have missing stones at the waterline, with soil exposed behind the abutment. Culvert "B" over the Red Clay Creek consists of a two span steel beam bridge on concrete abutments with a concrete pier in the middle of the creek. The superstructure is in deteriorating condition. There is 100 percent section loss in the webs of the steel beams near the bearing area. The timber deck is severely deteriorated and is mostly covered by steel plates. These bridges are owned by DNREC and are not on the department's bridge inventory.

County: New Castle

Municipality:

Funding Program: Road System – Bridges

Functional Category: Preservation

Representative District: 12 Senatorial District: 4, 6





BRIDGES OFF BENGE ROAD (CONTINUED)

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 12/31/03	Expended as of 12/31/03	Committed Unexpended as of 12/31/03	Authorization Available
Bridges off Benge Road		\$ 225.0						
Prior Years	State			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	Federal			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2004	State		\$ 225.0	\$ 25.0	\$ 25.0	\$ 0.0	\$ 25.0	\$ 0.0
	Federal			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2005 Request	State			\$ 200.0				\$ 200.0
•	Federal			\$ 0.0				\$ 0.0
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 200.0
*	Federal			\$ 0.0				\$ 0.0
	Other			\$ 0.0				\$ 0.0
FY 2007 Projected	State			\$ 0.0				\$ 200.0
•	Federal			\$ 0.0				\$ 0.0
	Other			\$ 0.0				\$ 0.0
FY 2008-2010 Projected	State			\$ 0.0				\$ 200.0
•	Federal			\$ 0.0				\$ 0.0
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 225.0	\$ 25.0			\$ 200.0
•	Federal			\$ 0.0	\$ 0.0			\$ 0.0
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 225.0	\$ 225.0	\$ 225.0	\$ 25.0	\$ 0.0	\$ 25.0	\$ 200.0

BRIDGES OFF BENGE ROAD (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 -2010
	Bridges off Benge Road	PE, C	100% ST	\$ 225.0	\$ 0.0	\$ 25.0	\$ 200.0	\$ 0.0	\$ 0.0	\$ 0.0
	Total All Funds			\$ 225.0	\$ 0.0	\$ 25.0	\$ 200.0	\$ 0.0	\$ 0.0	\$ 0.0

BR 1-001 AND BR 1-001A ON RISING SUN LANE OVER BRANDYWINE CREEK

PROJECT SCOPE/DESCRIPTION: This project will rehabilitate existing steel truss members and substructure; place a high performance deck overlay; make safety improvements at approaches; and fill scour holes and rehabilitate existing stone masonry abutment.

PROJECT JUSTIFICATION: Both bridges are structurally deficient and currently rank 9th and 63rd out of 1,399, respectively, on the department's bridge deficiency list (via the bridge management program).

County: New Castle

Municipality:

Funding Program: Road System – Bridges

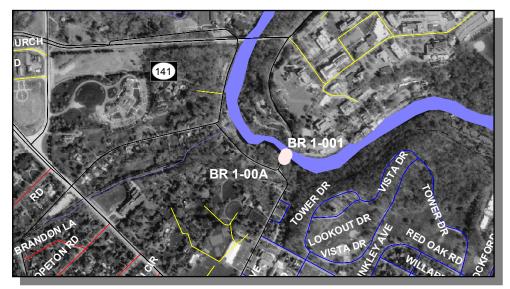
Functional Category: Preservation

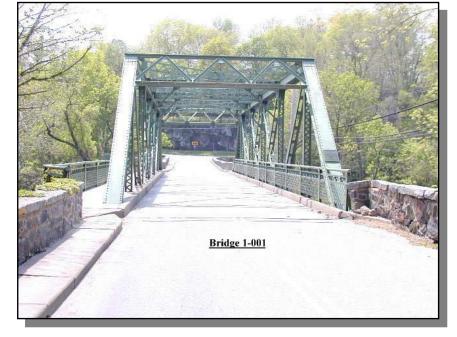
Representative District: 4 Senatorial District: 4











Bridge 1-001

BR 1-001 AND BR 1-001A ON RISING SUN LANE OVER BRANDYWINE CREEK (CONTINUED)

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 12/31/03	Expended as of 12/31/03	Committed Unexpended as of 12/31/03	Authorization Available
BR 1-001 and BR 1-001A on Rising Sun Lane								
over Brandywine Creek		\$ 1,286.5						
Prior Years	State			\$ 346.5	\$ 346.5	\$ 181.5	\$ 165.0	\$ 0.0
	Federal			\$ 240.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 240.0
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2004	State		\$ 1,286.5	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	Federal			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 240.0
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2005 Request	State			\$ 0.0				\$ 0.0
	Federal			\$ 0.0				\$ 240.0
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 0.0
,	Federal			\$ 0.0				\$ 240.0
	Other			\$ 0.0				\$ 0.0
FY 2007 Projected	State			\$ 140.0				\$ 140.0
	Federal			\$ 560.0				\$ 800.0
	Other			\$ 0.0				\$ 0.0
FY 2008-2010 Projected	State			\$ 0.0				\$ 140.0
	Federal			\$ 0.0				\$ 800.0
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 486.5	\$ 346.5			\$ 140.0
	Federal			\$ 800.0	\$ 0.0			\$ 800.0
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 1,286.5	\$ 1,286.5	\$ 1,286.5	\$ 346.5	\$ 181.5	\$ 165.0	\$ 940.0

BR 1-001 AND BR 1-001A ON RISING SUN LANE OVER BRANDYWINE CREEK (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 -2010
21-074-01	BR 1-001 and BR 1-001A on Rising Sun Lane over Brandywine Creek	PE	100% ST	\$ 261.5	\$ 261.5	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
		RW	100% ST	25.0	25.0	0.0	0.0	0.0	0.0	0.0
		С	80% FHWA	1,000.0	300.0	0.0	0.0	0.0	700.0	0.0
							•			
	Total All Funds			\$ 1,286.5	\$ 586.5	\$ 0.0	\$ 0.0	\$ 0.0	\$ 700.0	\$ 0.0

BŔ 1-00B

BR 1-001B ON KENNETT PIKE OVER RAILROAD EAST OF SR141

PROJECT SCOPE/DESCRIPTION: The proposed improvements to Bridge 1-001B, on Kennett Pike (SR 52), will replace the existing superstructure with prestressed concrete beams and a concrete deck. During the construction period concrete repair from the bridge to Presidential Drive will be completed. Appropriate landscaping will be added at the conclusion of the project. Maintenance of the landscaping will be the responsibility of the civic organizations in the area. Pavement resurfacing of the area south of the bridge to Greenhill Avenue will also be completed.

PROJECT JUSTIFICATION: The superstructure of this bridge is in poor condition, and the encased concrete steel beams are exposed. This bridge is currently ranked 31st out of 1,399 on the department's bridge deficiency list (via the bridge management program).

County: New Castle

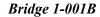
Municipality:

Funding Program: Road System – Bridges

Preservation **Functional Category:**

Representative District: 4 **Senatorial District:**







BR 1-001B ON KENNETT PIKE OVER RAILROAD EAST OF SR141 (CONTINUED)

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 12/31/03	Expended as of 12/31/03	Committed Unexpended as of 12/31/03	Authorization Available
BR 1-001B on Kennett Pike over Railroad East of SR141		\$ 3,677.0						
Prior Years	State			\$ 57.0	\$ 57.0	\$ 0.0	\$ 57.0	\$ 0.0
	Federal			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2004	State		\$ 3,677.0	\$ 1,324.0	\$ 870.6	\$ 317.7	\$ 552.8	\$ 453.4
	Federal		/	\$ 2,296.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 2,296.0
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2005 Request	State			\$ 0.0				\$ 453.4
	Federal			\$ 0.0				\$ 2,296.0
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 453.4
	Federal			\$ 0.0				\$ 2,296.0
	Other			\$ 0.0				\$ 0.0
FY 2007 Projected	State			\$ 0.0				\$ 453.4
•	Federal			\$ 0.0				\$ 2,296.0
	Other			\$ 0.0				\$ 0.0
FY 2008-2010 Projected	State			\$ 0.0				\$ 453.4
•	Federal			\$ 0.0				\$ 2,296.0
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 1,381.0	\$ 927.6			\$ 453.4
	Federal			\$ 2,296.0	\$ 0.0			\$ 2,296.0
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 3,677.0	\$ 3,677.0	\$ 3,677.0	\$ 927.6	\$ 317.7	\$ 609.8	\$ 2,749.4

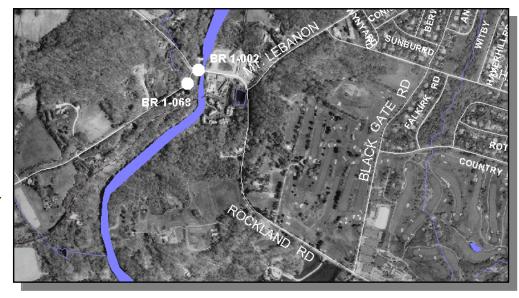
BR 1-001B ON KENNETT PIKE OVER RAILROAD EAST OF SR141 (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 -2010
	BR 1-001B on Kennett Pike over Railroad East of SR141									
99-071-08	Deides West	PE	100% ST	\$ 307.0	\$ 57.0	\$ 250.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
99-0/1-08	Bridge Work	C	80% FHWA	790.0	0.0	790.0			0.0	0.0
	Concrete Patching and Streetscape Improvements from Bridge to Presidential Drive	С	80% FHWA	1,140.0	0.0	1,140.0	0.0	0.0	0.0	0.0
	Roadway Improvements from Bridge to Presidential Drive	C	80% FHWA	940.0	0.0	940.0	0.0	0.0	0.0	0.0
	Paving from Greenhill Avenue to Bridge	C	100% ST	500.0	0.0	500.0	0.0	0.0	0.0	0.0
	1 aving from Greenin Avenue to Bridge		100/0 31	300.0	0.0	300.0	0.0	0.0	0.0	0.0
	Total All Funds			\$ 3,677.0	\$ 57.0	\$ 3,620.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0

BR 1-068 AND BR 1-002 ON ROCKLAND ROAD OVER BRANDYWINE CREEK

PROJECT SCOPE/DESCRIPTION: These bridges are located in the Rockland Historic District. Bridge 1-068 will require structural repairs. Bridge 1-002 will receive cosmetic improvements and repairs, which will prolong the life of this historic structure. In both cases, repairs will take into account the historical surrounding. Bridge 1-068 improvements will include replacement of the superstructure with prestressed concrete beams and stone-faced bridge rails, construction of two wingwalls, and repair of the supporting substructure. Bridge 1-002 improvements will include repair of the concrete beam encasements, replacement of deck joint seals, and waterproofing the deck.

PROJECT JUSTIFICATION: Bridges 1-068 and 1-002 are in need of repair to maintain their historic integrity and structural capacity. Bridge 1-068 is currently ranked 129th and Bridge 1-002 is currently ranked 128th out of 1,399 on the department's bridge deficiency list (via the bridge management program).



New Castle **County:**

Municipality:

Funding Program: Road System – Bridges

Functional Category: Preservation

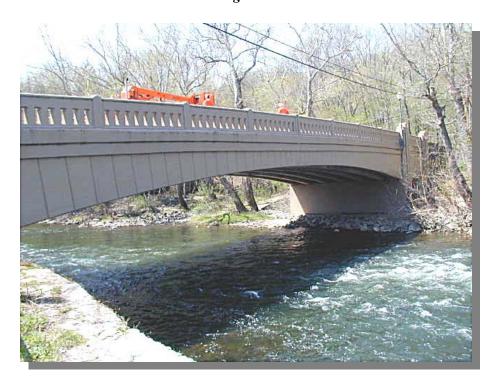
Representative District: 4, 10 **Senatorial District:**



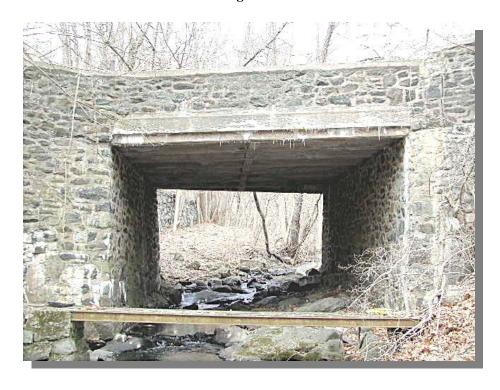


BR 1-068 AND BR 1-002 ON ROCKLAND ROAD OVER BRANDYWINE CREEK (CONTINUED)

Bridge 1-068



Bridge 1-002



BR 1-068 AND BR 1-002 ON ROCKLAND ROAD OVER BRANDYWINE CREEK (CONTINUED)

Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 12/31/03	Expended as of 12/31/03	Committed Unexpended as of 12/31/03	Authorization Available
BR 1-068 and BR 1-002 on Rockland Road								
over Brandywine Creek		\$ 1,183.7						
Prior Years	State			\$ 176.4	\$ 26.5	\$ 0.0	\$ 26.5	\$ 149.9
11101 Tears	Federal			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
	Other			\$ 0.0	\$ 0.0	3 0.0	\$ 0.0	3 0.0
FY 2004	State		\$ 1,183.7	\$ 201.5	\$ 351.4	\$ 97.7	\$ 253.6	\$ 0.0
	Federal			\$ 805.8	\$ 0.0	\$ 0.0	\$ 0.0	\$ 805.8
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2005 Request	State			\$ 0.0				\$ 0.0
	Federal			\$ 0.0				\$ 805.8
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 0.0
	Federal			\$ 0.0				\$ 805.8
	Other			\$ 0.0				\$ 0.0
FY 2007 Projected	State			\$ 0.0				\$ 0.0
	Federal			\$ 0.0				\$ 805.8
	Other			\$ 0.0				\$ 0.0
FY 2008-2010 Projected	State			\$ 0.0				\$ 0.0
	Federal			\$ 0.0				\$ 805.8
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 377.9	\$ 377.9			\$ 0.0
	Federal			\$ 805.8	\$ 0.0			\$ 805.8
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 1,183.7	\$ 1,183.7	\$ 1,183.7	\$ 377.9	\$ 97.7	\$ 280.1	\$ 805.8

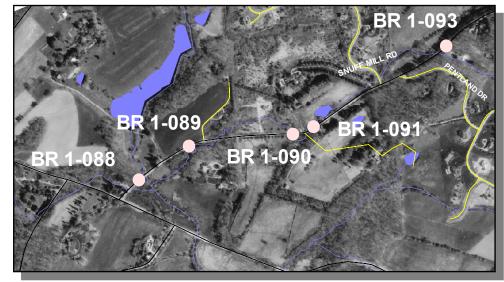
BR 1-068 AND BR 1-002 ON ROCKLAND ROAD OVER BRANDYWINE CREEK (CONTINUED)

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 -2010
22-071-01	BR 1-068 and BR 1-002 on Rockland Road over Brandywine Creek	RW	100% ST	\$ 176.4	\$ 176.4	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
		С	80% FHWA	1,007.3	0.0	1,007.3	0.0	0.0	0.0	0.0
	Total All Funds			\$ 1,183.7	\$ 176.4	\$ 1,007.3	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0

PROJECT SCOPE/DESCRIPTION: The Bridge 1-088 project, near Old Kennett Road, consists of improvements that will include replacing the existing concrete deck; stabilizing the existing substructure; repointing the stone masonry; repainting the steel beams; and installing scour countermeasures. The existing culvert will be replaced with a new reinforced concrete box culvert.

The remaining bridges will be replaced with concrete boxes and a concrete rigid frame (Bridge 1-089) with stone parapets and wingwalls. Roadway slope failures will also be fixed. Snuff Mill Road from Old Kennett Road to Kennett Pike will be paved. Construction began in May 2003.

PROJECT JUSTIFICATION: Bridge 1-088 ranks 151st on the bridge deficiency list. Bridge 1-089 ranks 29th on the bridge deficiency list. Bridge 1-090, Bridge 1-091 and Bridge 1-093 are functionally obsolete and rank 186th, 111th, and 290th, respectively, out of 1,399 on the department's bridge deficiency list (via the bridge management program).



County: New Castle

Municipality:

Funding Program: Road System – Bridges

Functional Category: Preservation

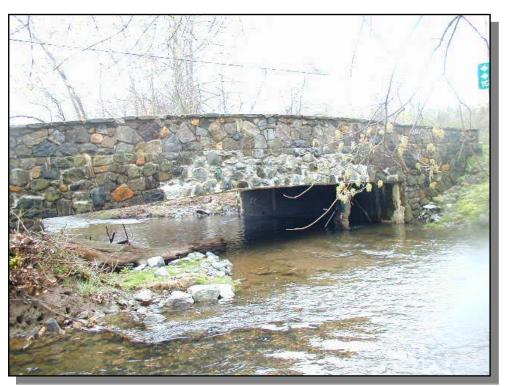
Representative District: 12 Senatorial District: 4







Bridge 1-088 Bridge 1-089





Bridge 1-090



Bridge 1-091



Project	Funding Type	Original Estimate	Current Estimate	Authorization	Committed as of 12/31/03	Expended as of 12/31/03	Committed Unexpended as of 12/31/03	Authorization Available
BR 1-088, BR 1-089, BR 1-090, BR 1-091,								
and BR 1-093, on Snuff Mill Road		\$ 2,484.0						
Prior Years	State			\$ 1,168.0	\$ 1,093.4	\$ 505.0	\$ 588.5	\$ 74.6
11101 Tears	Federal			\$ 1,316.0	\$ 1,093.4 \$ 1,277.7	\$ 614.9	\$ 662.8	\$ 38.3
	Other			\$ 1,510.0	\$ 1,277.7	\$ 0.0	\$ 002.8	\$ 0.0
	Other			3 0.0	3 0.0	3 0.0	\$ 0.0	\$ 0.0
FY 2004	State		\$ 2,484.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 74.6
	Federal			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 38.3
	Other			\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
FY 2005 Request	State			\$ 0.0				\$ 74.6
	Federal			\$ 0.0				\$ 38.3
	Other			\$ 0.0				\$ 0.0
FY 2006 Projected	State			\$ 0.0				\$ 74.6
	Federal			\$ 0.0				\$ 38.3
	Other			\$ 0.0				\$ 0.0
FY 2007 Projected	State			\$ 0.0				\$ 74.6
	Federal			\$ 0.0				\$ 38.3
	Other			\$ 0.0				\$ 0.0
FY 2008-2010 Projected	State			\$ 0.0				\$ 74.6
	Federal			\$ 0.0				\$ 38.3
	Other			\$ 0.0				\$ 0.0
Total Projected	State			\$ 1,168.0	\$ 1,093.4			\$ 74.6
	Federal			\$ 1,316.0	\$ 1,277.7			\$ 38.3
	Other			\$ 0.0	\$ 0.0			\$ 0.0
Total All Funds		\$ 2,484.0	\$ 2,484.0	\$ 2,484.0	\$ 2,371.1	\$ 1,119.9	\$ 1,251.2	\$ 112.9

Project #	Description	Phase	Funding Schedule	Current Estimate	Prior Years	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008 -2010
	BR 1-088, BR 1-089, BR 1-090, BR 1-091, and BR 1-093, on Snuff Mill Road									
20-074-03	1-088 on Snuff Mill Road	RW	100% ST	\$ 9.0	\$ 9.0		\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
		С	80% FHWA	600.0	600.0	0.0	0.0	0.0	0.0	0.0
99-071-07	1-089 on Snuff Mill Road	LANSC	100% ST	20.0	20.0	0.0	0.0	0.0	0.0	0.0
		С	80% FHWA	300.0	300.0	0.0	0.0	0.0	0.0	0.0
21-071-03	1-090 on Snuff Mill Road	C	80% FHWA	255.0	255.0	0.0	0.0	0.0	0.0	0.0
21-071-03	1-091 on Snuff Mill Road	RW	100% ST	10.0	10.0	0.0	0.0	0.0	0.0	0.0
		С	80% FHWA	490.0	490.0	0.0	0.0	0.0	0.0	0.0
21 071 02	1 002 G WYCHP I	-	1000/ GT	000.0	000.0	0.0	0.0	0.0	0.0	0.0
21-071-03	1-093 on Snuff Mill Road	С	100% ST	800.0	800.0	0.0	0.0	0.0	0.0	0.0
	Total All Funds			\$ 2,484.0	\$ 2,484.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0